

Title (en)
POLYETHYLENE BLEND COMPOSITION SUITABLE FOR BLOWN FILM, METHOD OF PRODUCING THE SAME, AND FILMS MADE THEREFROM

Title (de)
POLYETHYLENZUSAMMENSETZUNG FÜR EIN BLASFOLIEN VERFAHREN UND DARAUS HERGESTELLTE FILME

Title (fr)
UNE COMPOSITION DE POLYÉTHYLÈNE ADAPTÉE POUR UN PROCÉDÉ DE FILM SOUFFLÉ ET FILMS OBTENUS À PARTIR DE CEUX-CI

Publication
EP 2729527 B1 20161109 (EN)

Application
EP 12735741 A 20120702

Priority
• US 201161505875 P 20110708
• US 2012045237 W 20120702

Abstract (en)
[origin: WO2013009514A1] The instant invention provides a polyethylene blend composition suitable for blown film, method of producing the same, and films made therefrom. The polyethylene blend composition suitable for blown film, according to the present invention, comprises the melt blending product of: (a) from 5 percent or less by weight of a first low density polyethylene (first LDPE) having a density in the range of from 0.915 to 0.935 g/cm³, and a melt index (I₂) in the range of from greater than 0.8 to less than or equal to 5 g/10 minutes, and a molecular weight distribution (Mw/Mn) in the range of from 6 to 10; (b) from 5 to 50 percent by weight of a second low density polyethylene (second LDPE) having a density in the range of from 0.915 to 0.935 g/cm³, and a melt index (I₂) in the range of from 0.1 to less than or equal to 5 g/10 minutes, and a molecular weight distribution (Mw/Mn) in the range of from 6 to 10; with the proviso that the second LDPE has a melt index (I₂) that is different from the melt index (I₂) of first LDPE; (c) from 44 percent or greater by weight of a heterogeneous linear low density polyethylene (hLLDPE) having a density in the range of from 0.917 to 0.950 g/cm³, and a melt index (I₂) in the range of from 0.1 to less than or equal to 5 g/10 minutes; (d) optionally a hydrotalcite based neutralizing agent (e) optionally one or more nucleating agents; and (f) optionally one or more antioxidants. When said polyethylene blend-composition is formed into a film via a blown film process, the output rate is improved at least 6 percent, for example 7 percent, relative to a polyethylene blend composition consisting essentially of (a) a similar heterogeneous linear low density polyethylene component; and (b) a similar second low density polyethylene component.

IPC 8 full level
C08J 5/18 (2006.01); **C08L 23/08** (2006.01)

CPC (source: CN EP US)
C08J 5/18 (2013.01 - CN EP US); **C08L 23/06** (2013.01 - EP US); **C08L 23/0815** (2013.01 - CN EP US); **C08J 2323/08** (2013.01 - CN EP US); **C08J 2423/06** (2013.01 - CN); **C08L 2203/16** (2013.01 - CN); **C08L 2205/02** (2013.01 - EP US); **C08L 2205/025** (2013.01 - CN EP US); **C08L 2205/03** (2013.01 - CN); **C08L 2207/066** (2013.01 - CN); **Y10T 428/1352** (2015.01 - EP US)

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
WO 2013009514 A1 20130117; BR 112013033010 A2 20170131; BR 112013033010 B1 20201117; CN 103649205 A 20140319; CN 103649205 B 20161109; EP 2729527 A1 20140514; EP 2729527 B1 20161109; ES 2610557 T3 20170428; JP 2014520914 A 20140825; JP 6141837 B2 20170607; KR 101891371 B1 20180824; KR 20140043777 A 20140410; MX 2014000335 A 20140219; MX 354789 B 20180321; US 2014134364 A1 20140515

DOCDB simple family (application)
US 2012045237 W 20120702; BR 112013033010 A 20120702; CN 201280033442 A 20120702; EP 12735741 A 20120702; ES 12735741 T 20120702; JP 2014519225 A 20120702; KR 20147000153 A 20120702; MX 2014000335 A 20120702; US 201214118652 A 20120702